

CLAIM SET AS AMENDED

1. (currently amended) A method of generating a synchronisation pulse representing a symbol boundary in an OFDM signal comprising useful symbol periods separated by guard spaces, with data in each guard space corresponding to part of the data in a respective useful period, the method comprising:

~~the step of~~ deriving the difference between absolute values of samples of the OFDM signal separated by a period corresponding to the useful symbol period,

providing the difference between absolute values to an edge detector, and

generating the synchronisation pulse in response to a substantial change in the difference between absolute values.

2. (currently amended) A method as claimed in claim 1, wherein the difference between absolute values represents integrated values obtained over a plurality of symbol periods.

3. (original) A method as claimed in claim 2, wherein an infinite impulse response filter is used for producing the integrated values.

4. (canceled).

5. (currently amended) A method as claimed in claim [[4]]1, wherein the edge detector comprises a filter.

6. (currently amended) A method as claimed in claim 5, wherein the filter has variable coefficients.

7. (previously presented) A method as claimed in claim 5, wherein the filter is a finite impulse response filter.

Claims 8-12 (canceled).

13. (New) The method of claim 2, wherein the edge detector comprises a filter.

14. (New) The method of claim 13, wherein the filter has variable coefficients.

15. (New) The method of claim 1, further comprising:

demodulating the OFDM signal to produce complex samples of transmitted OFDM samples;

applying a Fourier Transform to the complex samples; and

synchronizing a Fourier Transform window with the OFDM symbols

using the synchronization pulse.

16. (New) An apparatus for generating a synchronization pulse for an OFDM signal, comprising:

a device for receiving an OFDM signal including useful symbol periods separated by guard spaces, with data in each guard space corresponding to part of the data in a respective useful period;

a first circuit for determining and monitoring the difference between absolute values of samples of the OFDM signal separated by a period corresponding to the useful symbol period; and

a second circuit for generating a synchronization pulse in response to said first circuit detecting a substantial change in the difference between absolute values.